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Control-Volume Finite-Element Two-Phase Flow Experiments with Fractured Rock Represented by Unstructured 3D Hybrid Meshes

SPE eLibrary Control-Volume Finite-Element Two-Phase Flow Experiments with Fractured Rock Represented by Unstructured 3D Hybrid Meshes 00093341 We represent intersecting natural and stochastically generated fractures in massive or layered porous rocks accurately with novel unstructured hybrid finite-element meshes. Governing Equations We use a combined dual mesh node-centered control-volume finite-element (CVFE) method23-24 extended by us to hybrid element meshes22,25 to solve pressure and transport equations.

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Simplified Finite-Element Models for Reservoir Flow Problems

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